Crops, Soils and Fertilizers

CONDUCTED BY B. W. KILGORE,

State Chemist North Carolina Department of Agriculture and Director Agricultural Experiment Station.

Inquiries of Progressive Farmer readers cheerfully an-

FARMING ON A LARGE SCALE.

Address of W. I. Everett of Richmond Co., North Carolina, Before Farmers' State Convention, Raleigh, N. C., August 3, 1904.

This is a query for solution into which enter many problems. Each and every day unexpected changes are to be met, labor problems are presented that cannot be passed by or deferred, but must be met and solved. Farming is widely different from any other work requiring manual labor. Season, temperature, etc., enter largely into the profits or loss in farming. The planter comes into contact with many other enterprises requiring labor, for which he cannot compete in prices paid, hence the efficient labor leave the farm and seek employment where large numbers are congregated and where they can obtain better prices. These prices can be paid on work of a character where full time and constant activity is demanded, while on the farm that supervision cannot be given, as the work extends over large territory. When direct supervision cannot be given to this class of work it is difficult to obtain an equation in labor for that paid for same. On account of the unreliable labor and the uncertainty of prompt attention, it becomes the landlord to adopt some other plan than that of cultivating a large plantation with day labor or wages labor. No two sections adopt the same plans for conducting this part of farming. In the same section some employ all labor paying daily, weekly or monthly wages, while others give for their labor an interest in the crops planted, cultivated and gathered.

Some landlords furnish land, stock, tools, fertilizer—in short, all save labor. For that they give one-third of the entire product of the farm. Others furnish land, stock, tools and one-half fertilizer, while the tenant or cropper furnishes onehalf fertilizer and all labor and receives one-half the product of the farm.

I am of the opinion that the cropper plan is the better where much labor is required. This secures a better class of tenants, prevents strikes, and they receive the reward for their labor. The landlord may not (and does not, when prices are good) reap that large profit he would under the wages system, yet he is secure in his labor, comparatively, and has the consolation of knowing he can keep his help so long as he deals justly with them. This none should fail to do.

PREPARATION OF LANDS.

In our judgment lands should be thoroughly broken, and well harrowed prior to the planting. Use two (or more) horse turn plow followed by subsoil or long scooter, thereby breaking the pan or hard land. This gives us a pulverized soil, or pulverized land, 12 to 20 inches deep. It is not essential to subsoil the land oftener than once in from three to five years. We then, when time arrives, prepare the lands in the usual way for planting. The first work after this is to run weeders, crossing the rows, thereby breaking any crust formation that the cotton may readily come up, or if up, it is a working and thereby the young grass is covered or taken up. Ofter this weeding is repeated, the chopping then is rapidly done, after which the sweep is put to work. the crop is cultivated by plows mostly, and they run shallow. Let me emphasize: Break deep and cultivate shallow. Continue this work to the last part of August.

When the gatherers commence and the cotton is dried out, the gins are started, this is followed by teams conveying the cotton to the market. As the crop is delivered settle with the croppers after

they pay for supplies. As each and every bale is delivered, pay them for their portion of the crop. thereby deliver to "Caesar the things that are Caesar's," and keep the labor, and they are satisfied. As an evidence, we have families who have been with us from fifteen to twenty-five years.

FERTILIZERS.

Until the present year we have not been able to to secure Peruvian guano at prices equivalent to that of others. This year we bought of this, at a cost delivered \$30.80 cash. The analysis was phosphoric acid 23 per cent, ammonia 3.95, potash 4.65. This is equivalent to 15 4-5 cents per pound, ammonia, phosphoric acid 3c., potash 5c.; while cottonseed meal at \$25 per ton would be 16 2-3c. for ammonia, phosphoric acid 4 1-7c., for potash 5 1-3c.; while in 8-3-3 guano at \$22.66, ammonia 19c., phosphate 4\(^3\)4c., potash 6 1-6c.

Our plan has been to use cottonseed meal, acid and kainit. In doing this we paid for ammonia 16 2-3c., while in the 8-3-3 at price named, we paid 19c. In buying 16 per cent acid at \$13.30, this cost us 4 1-7c., while in the 8-3-3, 4\(^3\)4c. Potash cost us 5 1-3c, while in the 8-3-3 it cost 6 1-6c. However we in part use muriate of potash in place of kainit. In this we save at least freight and drayage, handling, etc.

Our usual plan in using cottonseed meal, kainit and acid is to use one-half cottonseed meal, three-eighths phosphoric acid, one-eighth kainit. At above prices this gives us a ton in which there is 75 pounds ammonia, 120 pounds phosphoric acid, 31 pounds potash, at a cost of \$19.12. From the above it is considered that we get the plant food at a less price in the Peruvian guano than otherwise: this has not been true prior to this year.

Many years since, fifteen or more, we adopted the sowing of peas as a means of improving our lands. This, in our judgment, is by far the most economical system of bringing up our sandy lands. We plant and sow peas anywhere and everywhere possible on oat, wheat and rye stubble; we sow from two to two and a half bushels per acre, plant in corn and sow in same. Then rotate our crops as much as the lay of the land will permit. Our lands are light sandy soil, six to ten inches deep underly red clay. For the past fourteen years the average of lint per acre has been 274 pounds, the largest yield in 1898—349 pounds, the lowest yield 1901-151 pounds. The average price at home market has been 73/4c., the largest average any one year, 1903, was 12.48, the lowest 1898, 4.86. Labor cannot make cotton at the last-named price, nor can they at the lowest named quantity produced. Landlords may, the laborer cannot, support himself and family. I crave pardon for the above reference to personal interest. From this I quote, being the only positive and reliable statistics at my command.

LABOR.

As farmers, we are confronted with a problem for solution that will require time, patience and conservatism to deal with. With the old slave passing away, he who has been trained to habits of industry and honesty, with his descent taking his place, who generally have no conception of either—taking or pretending to fill the place as trusted labor. From this inefficiency we can but seek other labor that is more reliable. Now many of our largest farmers have white men—men of our own section—who are tenants.

From observation and experience I am satisfied that during the six months of making a cotton crop and the three of gathering the same, labor will lose one day in every week—16 per cent of the time, while during the other three months they will lose 50 per cent of their time—equivalent to 30 per cent of the entire time lost during the year. To obviate and overcome this great loss of time large farmers generally have adopted the plan of having supplies for their tenants carried to them, thereby reducing the loss of time to 16 2-3 per cent the entire year. Is there any bus-

iness, occupation or profession that can survive with a loss of 30 per cent of their time? With this system loss of time on the part of those who are dependent on their labor for the maintenance of self and family, the laborer will continue to be a hewer of wood and drawer of water.

Our best farms will average in valuation per horse farm, with improvements, say \$1,000. Interest on this amount, per annum, \$60.00; taxes on same, \$10.00; wear and tear of mule, \$15.00; interest on value of mule, \$10.00; one-half cost of same, \$10.00; wear and tear of mule, \$15.00; fertilizing, \$110.00; tools and keeping same in repair, \$10.00; superintendent, \$25.00; repairs on building, etc., \$10.00; ginning one-half of cotton, \$13.00. Total \$268.00.

From farm account for the past fourteen years I get the average production of cotton to be on each one horse farm, 6,850 pounds lint cotton, and average price of cotton for same period to have been 7%. One-half of 6,850 pounds cotton at 7%. \$265.43. One-half seed \$62.57. Total, \$328.00.

This gives profit of \$60. This with interest of \$60 on cost of farm, is equivalent to 12 per cent on investment to farmer or landlord. Bear in mind this is the average for 14 years. Last year for instance, it may have been double that, while one year no profit was received. In this estimate I take no account of corn forage, etc., as the landlord's one-half will be consumed by the mule.

Save Seed of Your Best Products. Editors Progressive Farmer:

I want to say a few words to the readers of your valuable paper in regard to the saving of seed for next year's crops. I often hear people say: "I can't fool away my time drying and putting away seeds when I can get all I will need for a few cents." Now, I want to say that I have no quarrel to pick with any seed house. We can't get along without seedsmen to supply us when we fail to have them, but we have thousands of people all over the South to-day throwing out to the chickens better seeds of watermelons, canteloupes, to-matoes and many other things, than they can buy next spring.

Now, the point is this: If you will select enough of the best seed you have to plant your next crop and thoroughly dry them, put them in packs and write the name and date on a slip of paper and put in with the seed, you will have the satisfaction next spring of knowing that you are putting seed in the ground that will grow, and that you know what kind they are. I know one man who has kept and planted one kind of water-melon seed for fifteen years, and he raises the finest melons I see any where.

I think the people of my county are more interested in seed corn than ever before, and any one having good seed corn would do well to advertise his corn in The Progressive Farmer this fall.

BLAKE JOHNSTON.

Gaston Co., N. C.

Sow Good Seed Wheat.

It is a pernicious practice with many wheatgrowers, especially in the South, to sell the best wheat and sow the worst. This is no saner than selling the best stock and keeping the runts for breeding purposes. The very best wheat, free from all noxious seeds, should be kept for sowing, and even this should be carefully screened so as to get out the smaller grains. A case is known to the writer in which a careful wheat-grower took bundles of wheat and struck them on the edge of an open box. The large grains were threshed out and sown. The yield was nearly doubled as compared with that produced by sowing the average run of grain. It takes time and patience to separate the best kernels of wheat for sowing, but it will pay, and pay largely, for the time consumed. With the separating fans now to be had it takes but a short time to separate the heaviest and best grains for sowing. Every wheat-grower should have such a fan.-Southern Farm Magazine.